KOLMYKOVA, V.N.; YEROSHKINA, A.M.

So-called homologous properties of human normal and tumor cells. Vop. onk. 10 no.7:57-60 '64. (MIRA 18:4)

1. Iz laboratorii kul'tivirovaniya tkaney (zav. - deystvitel'nyy chlen AMN SSSR prof. A.D.Timofeyevskiy) Instituta eksperimental'noy i klinicheskoy onkologii AMN SSSR (dir. - deystvitel'nyy chlen AMN SSSR prof. N.N.Blokhin). Adres avtorov: Moskva, I-110, ul. Shchapkina 61/2, korpus 9, Institut eksperimental'noy i klinicheskoy onkologii AMN SSSR.

KOLMYKOVA, V.N.; SHERSHUL'SKAYA, L.V.

Cytological studies on rat leukosis caused by viruses of mouse hemocytoblastosis-reticulosis. Vop. onk. 10 no.9:54-57 '64. (MIRA 18:4)

1. Iz laboratorii etiologii leykozov (zav. - doktor med.nauk N.P.Mazurenko) Instituta eksperimental'noy i klinicheskoy onkologii AMN SSSR (dir. - deystvitel'nyy chlen AMN SSSR prof. N.N.Blokhin. Adres avtorov: Moskva, I-110, ul. Shchepkina, 61.2, korp. 9, Institut eksperimental'noy i klinicheskoy onkologii AMN SSSR.

KOLNBERZ. V.K.

137-58-5-10763

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 5, p 269 (USSR)

AUTHOR: Kolnberz, V.K.

TITLE: The Corrosion Fatigue Strength of Metal Rods Employed for Intramedullar Fixation (O korrozionno-ustalostnoy prochnosti metallicheskikh sterzhney, primenyayemykh s tsel'yu intramedullyarnoy fiksatsii)

PERIODICAL: Ortopediya, travmatol. i protezir., 1957, Nr 5, pp 41-44

ABSTRACT: Steels of grade EYaIT or 1Kh18N9T are now widely used to make the rods employed in medicine in the treatment of bone fractures. The rod corrodes electrochemically under the influence of the aggressive organic medium and long-term loading. To improve corrosion resistance it is necessary that much attention be given to careful treatment of the surfaces. It is also necessary to strive, by proper immobilization, to reduce variable stresses. It is necessary to seek new alloys with superior anticorrosion properties.

I.B.

1. Bone--Fracture 2. Metals--Applications 3. Metals --Corrosion

Card 1/1

ZAKHAROV, V.M.; KOL'NER, G.M.

Single-cycle parallel summation device using ferrites and transistors (summator without transfer). Trudy MEI no.41: 45-56 '62. (MIRA 16:7)

(Electronic computers—Circuits)

KOL'NER, R. Yu., Physician

"Study of Acute Hepatitis in Children." Thesis for degree of Dr. Medical Sci. Sub 30 May 49, Second Moscow State Medical Inst imeni I. V. Stalin.

Summary 82, 18 Dec 52, Dissertations Presented for Degrees in Science and Engineering in Moscow in 1949. From Vechernyaya Moskva, Jan-Dec 1949.

KOL'NER, R.Yu.

Classification of epidemic hepatitis in children. Pediatriia, Moskva No.3:25-29 May-June 51. (CLML 21:4)

1. Of the Clinic for Children's Diseases of the Therapeutic Faculty, Second Moscow Medical Institute imeni Stalin (Director--Prof. N.I. Osnivskiy) attached to the Clinical Children's Hospital (Director--Honored Physician Ye.V. Prokhorovich).

TIMOSHENKO, Leonid Vasil'yevich, kandidat meditsinskikh nauk; KOL'NER, R.Yu., redaktor; GITSHTEYN, A.D., tekhnicheskiy redaktor

[Hemolytic diseases of newborn infants; the Rh factor as a cause of hemolysis and its complications] Gemoliticheskie zabolevaniia novorozhdennykh; rezus-faktor kak prichina gemoliza i ego oslozhneniia. Kiev, Gos. med. izd-vo USSR, 1956. 155 p. (MIRA 9:12)

(INFANTS (NEWBORN)--DISEASES)
(RH FACTOR)
(HEMOLYSIS AND HEMOLISINS)

GOL'SHTEYN, Isak Moyseyevich, professor; VERSHININA, Klavdiya Il'inichna, kandidat meditsinskikh nauk; KOL'NER, R.Yu., redaktor; GITSHTEYN, A.D., tekhredaktor

[Poliomyelitis and its prevention] Poliomielit i ego profilaktika. Kiev, Gos. med. izd-vo USSR, 1956. 108 p. (MLRA 9:8)
(POLIOMYELITIS)

KOL'NER, P. Yu.

KHOKHOL, Ye. M., redaktor; BALABAN, V.G., redaktor; KOL'NER, P.Yu., redaktor; LUK'YANOVA, Ye. M., redaktor; MAKSIMOVICH, N.I., redaktor; SIGALOV, D.L., redaktor; TIMOSHENKO, L.V., redaktor; LOKHMATYY, Ye. G., tekhnicheskiy redaktor

[Transactions of the second Congress of Pediatricians of the Ukrainian S.S.R. in 1955] Trudy II s"ezda vrachei-pediatrov Ukrainskoi SSR. Red. kollegiia M.N. Khokhol i dr. Kiev, Gos. med. izd-vo USSR, 1956. 314 p. (MLRA 10:4)

1. S"ezd vrachey-pediatrov Ukrainskoy SSR. 2d, 1955.
(PEDIATRICS)

KOL'NER, R.Yu.

KOL'NER, R.Yu.

[Poliomyelitis and its control] Poliomielit i zakhody borot'by z nym. Kyiv, Derzhavne Medychne Vydavnitstvo URSR, 1957. 27 p. (MIRA 11:3)
(POLIOMYELITIS)

KOL'NER, Rakhil' Yul'yevna

[Botkin's disease (infectious hepatitis)] Bolezn' Botkina (epidemicheskii gepatit) u detei. Kiev, Gos. med. izd-vo USSR, 1957. 221 p. (MIRA 11:4)
(HEPATITIS, INFECTIOUS)

KOL'NER, R.Yu.

"Diseases of the gall bladder and biliary tract in children" by A.F. Smylshliaeva. Reviewed by R.IU. Kol'ner. Pediatriia 36 no.5:82 My'58 (MIRA 11:6)

(GALL BLADDER--DISEASES)
(BILIARY TRACT--DISEASES)
(CHILDREN--DISEASES)

KOL'NER, R.

"Children's diseases" by A.A. Koltypin, N.I. Langovoi, V.V. Vlasov. Reviewed by R. Kol'ner. Pediatriia 36 no.10:83-85 O '58 (MIRA 11:11)
(CHILDREN--DISEASES)
(KOLTYPIN, A.A.) (LANGOVOI, N.I.)
(VLASOV, V.V.)

KHOKHOL, Ye.N., prof., red.; BALABAN,V.G., prof.,red.; KOL'NER,R.Yu.; SIGALOV,D.L.,red.; LUK'YANOVA,Ye.M., kand.med.nauk,red.; ANDRUSHCHUK,A.A., kand.med.nauk,red.; BABKO,I.M., kand.med.nauk,red.; BYKOV,N.M., tekhn.red.

[Acute gastrointestinal diseases of non-dysenterial etiology in young children; proceedings of a Republic Meeting and Broadened Plenum of the Pediatrics Society of the Ukraine] Ostrye zheludochno-kishechnye zabolevaniia nedizenteriinoi etiologii u detei rannego vozrasta; trudy. Red. koll.: E.N.Khokhol i dr. Kiev, Gos.med.izd-vo USSR, 1961. 199 p. (MIRA 14:11)

1. Respublikanskoye soveshchaniye i rasshirennyy plenum nauchnogo obshchestva detskikh vrachey Ukrayny, Odessa, 1959. 2. Chlen-korrespondent AMN SSSR(for Khokhol).

(DIGESTIVE ORGANS—DISEASES)

PEYSAKHOVICH, Iosif' Mironovich, prof.; KOL'NER, Rakhil' Yul'yevna; KORENEVSKIY, Leonid Ivanovich; LEVCHUK, Georgiy Antonovich; MAZURENKO, Nikolay Petrovich; POLONSKIY, Boris Leonidovich; SAVITSKIY, Vasiliy Nikolayevich; TELENGATOR, Yakov Moisyevich; URMANSKIY, Yulian Aleksandrovich; GLUZMAN, F.A., red.; RAYZ, A.L., tekhn. red.

[Drug therapy for malignant tumors] Khimioterapiia zlokachestvennykh opukholei. Kiev, Gos. med. izd-vo USSR, 1961. 304 p. (MIRA 14:11)

(CANCER)

MEDYANIK, R.V., otv. red.; PAP, A.G., zam. otv. red.; KHOKHOL, Ye.N., red. [deceased]; LUK'YANOVA, Ye.M., red.; ANDROSHCHUK, A.A., red.; KOL'NER, R.Yu., red.

[Pneumonia in young children] Pnevmoniia u detei rannego vozrasta. Kiev, Zdorov'ia, 1965. 229 p. (MIRA 18:8)

1. Ukrainskiy nauchno-issledovatel'skiy institut okhrany materinstva i detstva.

KOL'NER, S. V.

AID P - 4214

Subject : USSR/Engineering

Card 1/1 Pub. 103 - 15/20

Author : Kol'ner, S. V.

Title : Broaches with Hard-Alloyed Blades to Precision Hole Making.

Periodical : Stan. i instr., 27, 11, 1, 37-38, Ja 1956

Abstract : Broaches made out of U8A-type steel are designed to cut holes for piston-pins in the AL10 aluminum-alloy pistons. These broaches are provided with 6 to 8 detachable blades made out of the VK8 or T15K6 hard alloy. They have been found more economical and efficient than the previously used ones. Five drawings and 1 picture.

Institution : None

Submitted : No date

30343
S/193/61/000/011/007/007
A004/A101

I-111D

AUTHOR: Kol'nar, S. V.

TITLE: Electrochemical MA 31 deburring machine

PERIODICAL: Byulleten' tekhniko-ekonomicheskoy informatsii, no. 11, 1961, 44-46

TEXT: The pilot model of the electrochemical MA 31 deburring machine has been developed by ENIMS and built at the "Stankokonstruktsiya" Plant in 1960. The technological operation process of the machine is based on the local electrochemical etching of the burrs using an aqueous solution of neutral salts. The machine is a vertical six-position semi-automatic with periodically revolving swivel table welded from sheet vinyl plastic. Stainless steel plates are mounted on the table for fixing the parts being processed. The positive pole of 12-20 v direct current is led to the plates, while the negative pole cable is connected to the working heads (cathodes) located on the brackets of the pneumatic hoist. Various plastics are used to prevent current leakage and protect the machine parts from corrosion. All metal parts are zinc-plated, coated with a protective chromium layer and painted. The working heads (cathodes) are selected in accordance with the shape and dimensions of the part being deburred. The cathode

Card 1/2

S/121/62/000/004/003/008
D040/D113

AUTHORS: Kol'ner, S.V., Moroz, I.I., and Kharlamov, I.P.

TITLE: Semiautomatic MA-31 electrochemical deburring machine for metal parts

PERIODICAL: Stanki i instrument, no. 4, 1962, 26-29

TEXT: The MA-31 (MA-31) vertical machine designed by ENIMS in 1960 and produced by the "Stankokonstruktsiya" Plant deburrs gears, discs, flanges, etc., in 15 to 120 sec using an electrolyte pumped into the gap between the work surface and the cathode face. The MA-31 has a welded metal frame with an immobile vertical column, and a periodically rotating six-position vinyl plastic table with six stainless steel plates, 250 mm in diameter, with T-slots for fixing parts to be deburred. There is one station for loading and unloading, three for simultaneous deburring of three parts, one for blowing over with compressed air, and two for washing with a passivating solution and final air-blowing. The MA-31 accommodates parts up to 200 mm in diameter and 100 mm high and may be

Card 1/2

Semiautomatic MA-31 electrochemical....

used separately or in automatic lines. The electric control equipment which is placed in a separate cabinet includes a 600 amp, 20 v, d.c. rectifier. The electrolyte is pumped by a conventional electric pump and is a 10-20% aqueous solution of sodium chloride, sodium nitrate, or sodium sulfate and other salts with 3-5% sodium tartrate or sodium citrate addition to eliminate sediments. Plastics, chromium, zinc and paint are used for corrosion protection and textolyte and vinyl chloride for electric insulation. The machine design and operation is described and technical recommendations given. The principle of local electrochemical deburring used in the MA-31 is recommended for application in other machines, and particularly in large-lot and mass production of parts. It is stressed that the process can be fully automated, and that the costs of equipment, materials and electric power are low. There are 4 figures.

Card 2/2

KOL'NER, Semen Vladimirovich; KISELEVA, N.P., inzh., red. red.; EER, I.Ya., inzh. red.; SOROKINA, T.M., tekhn. red.

[Deburring gear wheels]Zachistka zausentsev zubchatykh koles. Moskva, Filial Vses. in-ta nauchn. i tekhn. informatsii, 1958. 19 p. (Peredovoi nauchno-tekhnicheskii i proizvodstvennyi opyt. Tema 10. No.M-58-84/15) (MIRA 16:3)
(Gear cutting)

97-58-1-2/12

AUTHOR: Ratts, E.G. Candidate of Mechanical Science.
Kholmyanskiy, M.M. Candidate of Mechanical Science.
Kol'ner, V.M., Engineer

TITLE: Transfer of Stresses from Tensioned Reinforcement on Concrete. (Peredacha armaturoy predvaritel'nykh napryazheniy na beton)

PERIODICAL: Beton i Zhelezobeton. 1958. No. 1 USSR Pp 4-13.

ABSTRACT: The transfer of stresses in concrete begins at the end of prestressed concrete products (vide Figure 1) Stresses could be calculated from a formula of equilibrium as shown. Investigations of these stresses were carried out in the laboratories of VNIIZhelezobeton under the leadership of E.G. Ratts. Associated with him were F.S. Belavin and L.P. Serova. Figure 2 illustrates various types of reinforcement used for tests and Table 1 tabulates characteristics of the reinforcements used. Tensioning in the reinforcements was measured by a "dynamometer" - DP-2. This instrument was constructed by the all-Soviet Scientific and Research Institute of the Ministry for Transportation Construction (Vsesoyuznyy Nauchno-issledovatel'skiy Institut Transportnogo Stroitel'stva Mintransstroya SSSR) (See article by N.M. Bogin in Beton i Zhelezobeton 1956 No. 3) The measurement of the displacement of reinforcement in concrete was

Card 1/2

Transfer of Stresses from Reinforcement on Concrete.

carried out by a microscope, magnifying 120 times, with an occular micrometer attached to AM-92. The accuracy of this instrument is 2-4 microns. Figure 3 illustrates laboratory testing equipment for casting pretensioned reinforced units. Figures 4,5 and 6 show graphs obtained during testing of stresses between reinforcement and concrete in prestressed reinforced testing samples with various reinforcements and qualities of concrete. Figure 8 shows relationship of described stresses as being the function of the depth of "setting in". Type TP reinforcement of 4 m.m diameter and various profiles was used. Figure 9 illustrates graphs giving empirical coefficients in relationship to the strength of the concrete. Distribution of of stresses at the ends of testing units caused by tensions between reinforcement and concrete was investigated and formulae are given. Experimental checking of mathematical calculations and practical recommendations are discussed. Table 2 gives figures for lengths of anchoring zones for various profiles of reinforcement and Table 3 gives recommendations for actual calculation of the length of the anchoring zone of standard reinforcement. Figure 14 shows a curve defining lengths of the anchoring zone and Figure 15 the distribution of normal stresses in the reinforcement in the zone. There are 15 Figures and 3 Tables.

Card 2/2. 1. Reinforced concrete--Properties 2. Reinforcing steel--Stresses

L 47445-66 EWT(m)/EWP(v)/T WW/WH

ACC NR: AP6008917 (A) SOURCE CODE: UR/0097/65/000/011/0025/0027

AUTHORS: Kol'ner, V. M. (Candidate of technical sciences); Aliyev, Sh. A. (Engineer); Gol'dfayn, B. S. (Engineer)

ORG: none

TITLE: Adhesion and the strength of the bond between concrete and corrugated rod reinforcement

SOURCE: Beton i zhelezobeton, no. 11, 1965, 25-27

TOPIC TAGS: concrete, ferroconcrete, adhesive bonding, bonding property, reinforced concrete

ABSTRACT: The relationship between the interaction of reinforcement with concrete involves the mutual displacement of both materials. The bonding stress is related to the displacements g(x) by the formula

$$\tau_{cu} = B \frac{\ln(1+\alpha g)}{1+\alpha g},$$

and is schematically represented in Fig. 1. An experimental study is made of the parameters B and α for corrugated rod reinforcement, and analysis of the basic factors influencing these values is carried out. The numerical value of the bonding parameters may be obtained by an experiment through the measurement of the mutual displacement of reinforcement and concrete as a function of the variation of

Card 1/3 UDC: 693.554.6

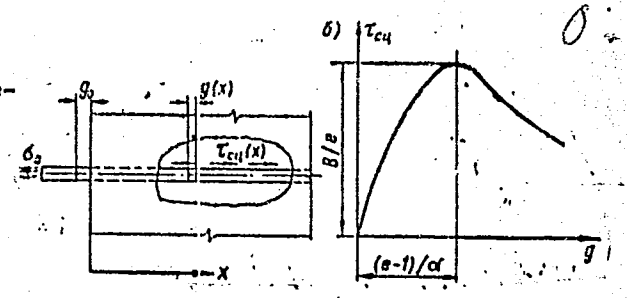

Fig. 1. Bonding of corrugated reinforcement with concrete. a - the stressed state of a ferroconcrete element; b - the variation of bonding stresses $\tau_{cц}$ and displacement g.

reinforcement displacement. This functional relationship may be written as

$$\alpha g_0 = e^{\alpha s/k\,(1+n\mu)} - 1,$$

where k is a coefficient satisfying the equation

$$B = \frac{\alpha k^2 D\,(1+n\mu)}{4E_a};$$

n and μ are respectively the ratio of the modulus of elasticity and the cross-sectional area of the reinforcement to the modulus of elasticity and the cross-sectional area of the concrete, D is the diameter of the reinforcement, and E_a is the modulus of elasticity of the reinforcement. A schematic diagram of a device for measuring the stated parameters is shown, and the concrete-reinforcement configuration for each test specimen is listed. The test results lead to an empirical formula

$$\sigma_{max}/k = 0{,}5\,(l/a)^{0.4}.$$

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ACC NR: AP6008917

for computing σ_{max} (the maximal reinforcement stress), where ℓ is the rod length (not anchored), and a is given by

$$a = \frac{E_s}{\alpha k (1 + n\mu)}.$$

Orig. art. has: 4 figures and 9 equations.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 003

Card 3/3 mjs

KHOLMYANSKIY, M.M., kand.tekhn.nauk (Moskva); KOL'NER, V.M., kand.tekhn.nauk (Moskva); MICHURIN, V.F., inzh. (Moskva); SEROVA, L.P., inzh. (Moskva); TEVELEV, Yu.A., inzh. (Moskva)

Study of the action of transverse elements of large-panel apartment houses. Issl. po teor. sooruzh. no.14:169-184 '65.

(MIRA 18:10)

KOL'NER, V.M., inzh.

Effect of the stress transmission on the distribution of preliminary stresses in anchorage zones. Bet.i shel.-bet. no.7:319-321 Jl '60. (MIRA 13:7)

(Prestressed concrete)
(Strains and stresses)

KOLNER, V. M. Cand Tech Sci— (diss) "Tenacity of wire in periodic section with concrete during prestreesing operation," Moscow, 1960, 16 pp, 160 cop. (Moscow Engineering Construction Institute im V. V. Kuynyshev) (KL, 45-60, 125)

KHOLMYANSKIY, M.M., kand.tekhn.nauk; KOL'NER, V.M., kand.tekhn.nauk;
YUKHVETS, I.A., kand.tekhn.nauk; GAROYAN, V.A., inzh.

Reinforcement made of high-strength wire with a double profile.
Bet.i zhel.-bet. no.6:257-261 Je '61. (MIRA 14:7)
(Concrete reinforcement)

KHOLMYANSKIY, M.M., kand.tekhn.nauk; KOL'NER, V.M., kand.tekhn.nauk; SEROVA, L.P., inzh.

Differentiated designation of the minimum strength of concrete. Bet. i zhel.-bet. no.1:12-16 Ja '62. (MIRA 15:4)
(Concrete--Testing)

KHOLMYANSKIY, M.M., kand.tekhn.nauk; KOL'NER, V.M., kand.tekhn.nauk;
SEROVA, L.P., inzh.

Effect of some structural and technical factors on the bond of wire reinforcement with concrete. Sbor. trud. NIIZHelezobetona no.5:145-166 '61. (MIRA 16:3)
(Concrete reinforcement—Bond)

38351
S/058/62/000/005/063/119
A057/A101

24,1800
10.8000

AUTHOR: Kolnik, S.

TITLE: On the optical investigation of standing ultrasonic waves in a transparent liquid

PERIODICAL: Referativnyy zhurnal, Fizika, no. 5, 1962, 46, abstract 5G420 ("Acta Fac. rerum natur. Univ. Comenianae. Phys.", 1961, v. 5, no. 7, 343-378, Slovakian; Russian and German summaries)

TEXT: The problem of obtaining optical images of standing ultrasonic waves (UW) in a transparent liquid by means of plane light waves, which pass thro[illegible]he UW-field perpendicularly to the axis of the UW-beam, is discussed. The [illegible]ing of the device for obtaining pictures of standing UW represents a collimator objective, forming plane light waves, which pass the container with the investigated UW-field. The optical image of the UW-field is calculated by several simplifications using integrals known from the general theory of diffraction. Using them, the light field in the focal plane of the picturing objective and in the plane of formation of the real picture of disturbances can be calculated if the distribution of the light field in the region of its disturbance by

Card 1/2

41228

S/194/62/000/007/088/160
D295/D308

10.7200

AUTHOR: Kolnik, S.

TITLE: Investigations into the possibility of obtaining optical images of ultrasonic standing waves

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no.7, 1962, abstract 7-5-48 u (Acta Fac. rerum natur. Univ. Comenianae, Phys., 5, no. 7, 1961, 343 - 378 [Slovak; summaries in Rus. and Ger.])

TEXT: The problem of obtaining direct images of ultrasonic standing waves in a transparent liquid by means of various screening methods is considered. It is pointed out that, in this connection, primary use is made of the diffraction of light by the ultrasonic phase pattern arising from variations of the index of refraction in the liquid. The following assumptions are made: the light wave generated by the collimator system with a linear slit intersecting the optical axis is assumed to be plane; in a liquid of very low viscosity the refractive index varies harmonically; departure from monochromaticity connected with changes of refraction index is ne-

Card 1/4

S/194/62/000/007/088/160
D295/D308

gligible; there is no absorption of light and ultrasound; the ultrasonic pattern causing FM and AM of light is assumed to be plane. A detailed derivation is given for the formula of the image function in terms of the parameters of the ultrasonic pattern and of a function characterizing the method of symmetrical screening of the diffraction picture. A formula is also derived for the distribution of the average illumination in the image plane. In deriving this formula use is made of the proportionality of illumination to the square of the absolute value of the image function. The formula makes it possible to determine the variation of the refractive index in the phase structure of the ultrasonic pattern and thus to assess the character of the ultrasonic standing wave on the basis of the diffraction picture obtained with different methods of symmetrical screening, i.e. to assess its monochromaticity, amplitude and geometry. Simplifications in the calculation of illumination are made. The illumination distribution formula is analyzed for the case of absence of screening; for a screening method similar to the dark-field method; for a different degree of screening and the analog of the phase-contrast method. An experimental set-up for obtaining light diffraction from the ultrasonic standing wave is described.

Card 2/4

Investigations into the possibility ...

simple and multiple reflection, and ultrasonic absorption. The investigation of surface waves by this method can be applied, under certain conditions, to modelling of the infrasonic region and be used in seismology. 7 figures. 20 references. [Abstracter's note: Complete translation.]

Card 4/4

KOLNIK, Stanislav

A simple explanation of the movement of light ray in the full reflex.
Mat fyz cas 12 no.3:235-240 '62.

1. Katedra fysiky, Universita Komenskeho, Smeralova 2, Bratislava.

PARAFENYUK, M.G.; KOL'NIKOV, B.N.

New apparatus for franklinization and aeroionization. Med.prom. 13 no.11:45-47 N '59. (MIRA 13:3)

1. Moskovskiy zavod elektromeditsinskoy apparatury.
(ELECTROTHERAPEUTICS--APPARATUS AND INSTRUMENTS)

KOVTUN, G.I.; KOL'NIKOV, B.N.

Modernization of apparatus for the electrostimulation of muscles. Med.prom. 14 no.6:51-53 Je '60. (MIRA 13:6)

1. Moskovskiy zavod elektromeditsinskoy apparatury.
(ELECTROPHYSIOLOGY)

KOL'NIKOV, B.N.

New apparatus for franklinization and aeroionotherapy. Vop.kur., fizioter.i lech.fiz.kul't. 25 no.1:66-67 '60. (MIRA 13:5)

1. Moskovskiy zavod elektromeditsinskikh apparatov.
(MEDICAL INSTRUMENTS AND APPARATUS)

KOL'NIKOV, B.N., inzh.

Electric muscle-exerciser. Nauka i zhizhn' 27 no.2:27 F '60.
(MIRA 13:6)
(Electrotherapeutics--Apparatus and instruments)

GOL'DSHTEYN, A.I.; KOL'NIKOV, B.N.

Moscow Electromedical Apparatus Plant and its campaign for technological progress. Med. prom. 15 no.3:24-27 Mr '61. (MIRA 14:5)

(MEDICAL INSTRUMENTS AND APPARATUS)

S/076/62/036/010/001/005
B101/B186

AUTHORS: Kolninov, O. V., and Zvonkova, Z. V.

TITLE: Study of the dependence of the electron absorption spectra of phenyl derivatives of elements of groups IV and V on the nuclear potentials of the elements

PERIODICAL: Zhurnal fizicheskoy khimii, v. 36, no. 10, 1962, 2228-2230

TEXT: The effects of the nuclear potential Z^*/r and difference $\Delta\pi$ in electronegativity of atoms in the element - carbon bond of isomorphic tetraphenyl compounds of C, Si, Ge, Sn, and Pb were studied. The electron absorption spectra in the region 225 -320 mμ were determined in crystalline lamellas ~5μ thick. Except for $(C_6H_5)_4Pb$, all spectra were of the same type and showed two absorption bands, the first of which occured at 250 - 280 mμ owing to electron transition in the phenyl radicals from the ground state into the excited state. This band shows fine structure bands which, compared to the benzene spectrum, are shifted some mμ. A noticeable shift of bands depending on the type of the

Card 1/3

central atom, however, does not occur. Conclusion: In tetraphenyl compounds of C, Si, Ge, Sn, and Pb, π-electron conjugation of the phenyl radicals with the central atom is almost completely absent, and the π-electron system of the benzene rings remains almost unchanged. In the second band (λλ 250 mμ) of $(C_6H_5)_4Ge$, the absorption edge, as compared to that of $(C_6H_5)_4Si$ and $(C_6H_5)_4Sn$, shows a shift of some mμ towards the short wave region. In accordance with H. H. Jaffe (J. Chem. Phys., 22, 1430, 1954), this effect is assumed to be caused by the central atom. The origin of the second band, however, has not been investigated sufficiently. On the basis of data obtained by Jaffe for the electron spectra of triphenyl compounds of P, As, and Sb, the phenyl radicals are assumed to conjugate owing to the free electron pairs of the central atom. Thus the shift of the first band probably depends on the type of central atom; from this shift, the change in excitation energy of pπ-electrons is estimated to be of the order of 0.1 ev depending on Z^*/r of P, As, and Sb. Further studies are required to explain the relation between the mobility of holes in InP, InAs, and InSb (650, 200, and 700 $cm^2/v \cdot sec$, respectively) and the ligand. There are 6 figures.

S/076/62/036/010/001/005
Study of the dependence of the electron ... B101/B186

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova
(Physicochemical Institute imeni L. Ya. Karpov)

SUBMITTED: December 2, 1961

Card 3/3

ZVONKOVA, Z.V.; KOLNINOV, O.V.

Dependence of interatomic distances in crystalline structures on the ligand field. Zhur. fiz. khim. 37 no.12:2778-2780 D '63. (MIRA 17:1)

1. Fiziko-khimicheskiy institut imeni Karpova.

DOROSINSKIY, A.L.; KOLNINOV, O.V.; ZVONKOVA, Z.V.; ZHDANOV, G.S.

X-ray and spectral studies of the complex compounds of cuprous thiocyanate with thiourea and pyridine. Dokl. AN SSSR 150 no.6:1278-1279 Je '63. (MIRA 16:8)

1. Fiziko-khimicheskiy institut im. L.Ya. Karpova. Predstavleno akademikom S.S.Medvedevym.
(Copper compounds--Spectra) (Thiocyanates) (Urea)

EPF(c)/EPA(s)-2/EWP(j)/EWT(m)/EWP(b)/EWP(t) Pr-4/Pt-4/Pt-10/
Pad IJP(c)/RPL RM/JD/HW

ACCESSION NR: AP5004602 S/0020/65/160/002/0405/0408

AUTHOR: Terent'yev, A.P. (Corresponding member AN SSSR); Vozzhennikov, V. M.; Kolninov, O. V.; Zvonkovz, Z. V.; Rukhadze, Ye. G.; Glushkova, V. P.; Berezkin, V. V.

TITLE: Semiconducting and optical properties of copper, nickel, zinc, and cadmium dithiocarbamates

SOURCE: AN SSSR. Doklady, v. 160, no. 2, 1965, 405-408

TOPIC TAGS: copper dithiocarbamate, nickel dithiocarbamate, zinc dithiocarbamate, cadmium dithiocarbamate, dithiocarbamate semiconducting property, dithiocarbamate optical property, organic semiconductor, chelate electrical property, polychelate conductivity, activation energy

ABSTRACT: This paper is part of a study of a series of chelates and polychelates aimed at determining the dependence of their electrical properties on their atomic structure and [illegible] of their chemical bonds: this in turn is vital in the synthesis of organic semiconductors. In this work, it was found that the electrical conductivity depends on the concentration of metal in the sample more than on the nature of the metal, as indicated by [illegible] copper compounds. All the [illegible] studied were [illegible] high electrical resistance [illegible] spectra

Card 1/2

L 29933-65
ACCESSION NR: AP5004602

several types of electronic transitions were established, and the thermal activation energy [illegible] was compared with the optical activation energy E_{opt}. It was concluded that the semiconducting parameters are determined primarily by the nature of the metal - ligand chemical bond, and not by the crystal structure or superstructure. Orig. art. has: 3 figures, 1 table and 2 formulas.

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova (Physicochemical institute); Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova (Moscow state university)

SUBMITTED: 04Aug64 ENCL: 00 SUB CODE: OC, EM

NO REF SOV: 004 OTHER: 000

Card 2/2

L 41220-66 EWT(m)/EWP(j) RM

ACC NR: AP6023209 SOURCE CODE: UR/0020/66/168/006/1327/1330

AUTHOR: Kolninov, O. V.; Terent'yev, A. P. (Corresponding member AN SSSR); Zvonkova, Z. V.; Rukhadze, Ye. G.

ORG: Physicochemical Institute im. L. Ya. Karpov (Fiziko-khimicheskiy institut); Moscow State University im. M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet)

TITLE: Study of the photoemf and electron spectra of certain dithiocarbamate compounds of transition metals

SOURCE: AN SSSR. Doklady, v. 168, no. 6, 1966, 1327-1330

TOPIC TAGS: chelate compound, transition metal compound, electron spectrum, photoconductivity, photo emf

ABSTRACT: Curves of the spectral distribution of photoemf were recorded in the range of 42,000-12,000 cm^{-1} for the four chelates $Cu[(C_2H_5)_2NCS_2]_2$, $Cu[(CH_2)_6NCS_2]_2$, $Ni[(C_2H_5)_2NCS_2]_2$ and $Co[(C_2H_5)_2NCS_2]_3$. The electron absorption spectra were measured with an SP-700 recording spectrophotometer. Four types of new bands were found: (1) d-d, due to transitions between split levels of the central metal atom, (2) bands of charge transfer between atoms of the ligand and metal (π-d transitions), (3) bands of charge transfer between atoms of ligand and metal in σ orbitals, and (4) bands corresponding to transitions within the NCS_2 ligand ($n \rightarrow \pi^*$, $\pi \rightarrow \pi^*$, $n \rightarrow \sigma^*$). Comparison of the photoemf spectra and absorption spectra showed that the principal ligand - metal

Card 1/2 UDC: 541.133+543.42.062

L 41220-66
ACC NR: AP6023209

interaction occurs via the σ bonds. The data obtained shed some light on the mechanism of photoconductivity in chelate compounds with transition metals: in the first stage, there is a transition of electrons from the ligands to the antibonding orbital σ*, localized at the metal atom (for example, $d_{x^2-y^2}$ for Cu); in the second stage, the charge carriers are transferred to the neighboring molecule by the tunnel mechanism without any activation energy. All compounds studied were found to have hole photoconductivity. The important role of the central metal atom in the mechanism of photoconductivity is also discussed. Orig. art. has: 3 figures.

SUB CODE: 07,20/ SUBM DATE: 06Dec65/ ORIG REF: 002/ OTH REF: 002

Card 2/2 mlp

KOL'NIKOVA, N.M.

Effect of phthivazid on the blood coagulation factor in tuberculosis patients with hemoptysis and hemorrhage. Probl. tub. 38 no. 5:36-40 '60. (MIRA 14:1)

(ISONICOTINIC ACID) (BLOOD—COAGULATION)

KOL'NITSKIY, S. L.,

"Plant Equipment for Building Turbines," Technological Developments at the Leningrad Metal Works imeni Stalin, Moscow, Mashgiz, 1957. p 222.

KOL'NOV, A.F.

Reservation of fuses in switch circuits. Avtom., telem.i sviaz' 4 no.3:35 Mr '60. (MIRA 13:7)

1. Zamestitel' nachal'nika Akmolinskoy distantsii signalizatsii i svyazi Kazakhskoy dorogi.
(Railroads--Switches)

KOL'NOV, A.F.

Change in the control frequency level regulating circuit.
Avtom., telem.i sviaz' 6 no.4:35 Ap '62. (MIRA 15:4)

1. Zamestitel' nachal'nika TSelinogradskoy distantsii signalizatsii i svyazi Kazakhskoy dorogi.
(Telephone)

KOL'NOV, A.F.

A new method for synchronizing high-frequency ME-8 apparatus.
Avtom., telem. i sviaz' 7 no.2:34 F '63. (MIRA 16:3)

1. Zamestitel' nachal'nika TSelinogradskoy distantsii signalizatsii i svyazi Kazakhskoy dorogi.
(Railroads—Communication systems) (Railroads—Electronic equipment)

KOL'NOV, A.F.

Suggestions of the participants of a "railroad conference on the exchange of experience." Avtom., telem. i sviaz' 8 no.5:30 My '64. (MIRA 17:10)

1. Zamestitel' nachal'nika TSelinogradskoy distantsii Kazakhskoy dorogi.

SOV/91-59-2-3/33

AUTHORS: Dykhno, A. Yu., and ~~Kolobakina, N. S.~~, Engineers

TITLE: The Cleaning of Condensate from Oil
(Ochistka kondensata ot masla)

PERIODICAL: Energetik, 1959, Nr 2, pp 7 - 9 (USSR)

ABSTRACT: The article describes the experience acquired by the heat and power plant of an oil processing plant in cleaning the condensate which is subject to return from the plant. Preliminary cleaning was accomplished by allowing the condensate to settle in the settling tanks where, after 60 hours, the content of oil was decreased from 500-700 to 50-60 mgr per liter. The final cleaning was performed in a special three-stage plant that included a coagulation station with brightening filters (first stage), absorbing filters (second stage), and water softening filters of sulphocarbon type (third stage). The article describes the details of treatment of the condensate at all three stages of cleaning, with the following resumé: - Return of condensate from the plant was increased by 14-16%, then by50%, with the use of this cleaning method. Allowing the oil to settle

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The Cleaning of Condensate from Oil

in settling tanks alone resulted in a ten-fold decrease of oil content in the condensate. This method of cleaning not only removed oil, but also removed the ferrous and copper oxides. Preliminary treatment of filters with air blast greatly reduced the need for water by the plant. It was disocvered that the alkalinity of condensate showed an increase after it had passed through the sulphocarbon filters. Use of acidulator (strong sulfuric acid) led to intensive corrosion of tanks and an increase in ferrum content in the condensate up to 8 mgr/liter. It was replaced by way of regeneration of the Na-cationite filters ("Na-kationitovyye") with salt brine. The plastic caps, VTI-K, used in the process were found to be faulty and their use was discontinued by way of introduction of a capless system of filter drainage. There is one table and four diagrams.

KOLOBANOV, A.A. MAKSIMOV, VI, i MALYSHKIN, K.N.

24960 Malyshkin, K.N. Maksimov, VI i Kolobanov, A.A. Vnedreniye I Eksploatatsiya Kontrol'No- Izmenitel'Ykh Priborov. Bumazh. Prom-st' 1949 No 3, s 35-38.

So: Letopis' No 33, 1949

KOLOTILOV, B.

Kanalizatsiia sel'skikh postroek [Sewage systems for rural structures] . Kiev, Gostekhizdat USSR, 1952 124. p.

SO: Monthly List of Russian Accessions, Vol. 6 No. 5, August 1953

KOLOBANOV, S.K.; PEREVALOV, V.G.; BULAVA, M.N., redaktor; MINEVICH, I., tekhnicheskiy redaktor.

[Supplying water to construction sites] Vodosnabzhenie stroitel'nykh ploshchadok. Kiev, Gos. izd-vo tekhn. lit-ry USSR, 1953. 140 p. (MLRA 8:2)
(Water supply) (Building)

KOLOBANOV, S. K.

Water supply and sewerage Kyiv, Derzh. vyd-vo tekhn. lit-ry URSR, 1954. 426 p. (55-33011)

TD345.K53

KOLOBANOV, Sergey Konstantinovich, kandidat tekhnicheskikh nauk;
ALIMIN,A., redaktor; ZELENKOVA,Ye., tekhnicheskiy redaktor

[Plumber's manual] Pamiatka slesaria-vodoprovodchika. Kiev, Izd-vo Akademii arkhitektury USSR, 1955. 211 p. (MLRA 9:3)
(Plumbing)

KOLOBANOV, S.K.

KOLOBANOV, S.K.; BULAVA, M.N.; DANILENKO, M.D.; PYARTLI, A.P.; ALEKSANDROVSKIY, A., red.; IOAKIMIS, A., tekhn.red.

[Plumbing; planning and installing] Sanitarno-tekhnicheskoe oborudovanie zdanii; proektirovanie i montazh. Kiev, Gos. izd-vo lit-ry po stroit.i arkhit.USSR, 1957. 276 p. (MIRA 11:1)
(Plumbing)

KOLOBANOV, S., kand.tekhn.nauk

Minor purifying structures. Sil'.bud. 7 no.6:16-18
Je '57. (MIRA 13:3)
(Sewage--Purification)

KOLOBANOV, Sergey Konstantinovich; KOMENDANT, K., red.; KOVAL'CHUK, G., tekhn.red.

[Water-supply and sewer systems] Vodoprovod i kanalizatsiia. Kiev, Gos.izd-vo lit-ry po stroit. i arkhit.USSR, 1960. 104 p. (MIRA 13:7)

(Sewerage) (Water-supply engineering)

SHISHKIN, Zakhar Nesterovich; KARELIN, Yakov Aleksandrovich, dotsent; KOLOBANOV, Sergey Konstantinovich, dotsent, kand.tekhn.nauk; YAKOVLEV, Sergey Vasil'yevich, doktor tekhn.nauk; ZHUKOV, A.I., prof.; GULYAYEV, N.F., kand.tekhn.nauk; SUKHIY, P.A., inzh., retsenzent; POPOVA, N.M., kand.tekhn.nauk, retsenzent; SMIRNOVA, A.P., red.izd-va; GILENSON, P.G., tekhn.red.; TEMKINA, Ye.L., tekhn.red.

[Sewerage] Kanalizatsiia. Izd.2., ispr. Pod red. A.I.Zhukova. Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit.materialam, 1960. 592 p. (MIRA 14:4)

(Sewerage)

KOLOBANOV, S.; KIGEL', Ye.

Removing snow by dumping it into sewer systems. Zhil.-kom. khoz. 10 no.1:23-25 '60. (MIRA 13:5)

1. Glavnyy inzhener slushby kanalizatsii Upravleniya vodokanalizatsii, Kiyev (for Kigel').
(Kiev--Snow removal)

KOLOBANOV, S., kand.tekhn.nauk

Water supply of houses on collective farms. Sil'.bud. 10 no.3: 13-15 Mr '60. (MIRA 13:6)
(Water-supply, Rural)

KOLORANOV, S., kand.tekhn.nauk

Providing collective-farm houses with sanitary-engineering installations. Sil'.bud. 10 no.5:14-17 My '60. (MIRA 13:7)

(Ukraine--Sanitary engineering)

KOLOBANOV, S.K., kand. tekhn. nauk; KRASNITSKIY, M.S., kand. tekhn. nauk; MIZETSKIY, B.G., inzh.; UGINCHUS, A.A., doktor tekhn. nauk, red.; SURYGINA, E., red.; NARINSKAYA, A., tekhn. red.

[Hydraulics of structures and pipes] Gidravlika sooruzhenii i truboprovodov; sbornik statei. Pod red. A.A.Uginchusa. Kiev, Gos. izd-vo lit-ry po stroit. i arkhit. USSR, 1961. 122 p. (MIRA 14:6)

1. Akademiya stroitel'stva i arkhitektury USSR. Institut vodosnabzheniya, kanalizatsii, gidrotekhnicheskikh sooruzheniy i inzhenernoy gidrogeologii.

(Hydraulics)

KOLOBANOV, Sergey Konstantinovich, kand. tekhn. nauk; BERGER, K.V., red.; LEUSHCHENKO, N.L., tekhn. red.

[Water supply and sewerage] Vodopostachannia i kanalizatsiia. Kyiv, Derzhbudvydav URSR, 1962. 345 p. (MIRA 15:6)
(Sewerage) (Water--Supply engineering)

KOLOBANOV, S., kand.tekhn.nauk, dotsent

Local sewage purification structures for residential and public buildings in villages. Sil'.bud. 12 no.9:15-18 S '62. (MIRA 15:11)

(Sewerage, Rural)

KOLOBANOV, Sergey Konstantinovich, kand. tekhn. nauk; SURYGINA, E., red.; YEREMINA, I., tekhn. red.

[Handbook for the sanitary engineer] Pamiatka santekhnika. Kiev, Gosstroiizdat USSR, 1963. 167 p. (MIRA 16:5)
(Plumbing)

KOLOBANOV, S., kand.tekhn.nauk, dotsent

Technical indications for designing sewage systems in residential and public buildings in rural areas. Sil'.bud. 13 no.10:8-9 O '63. (MIRA 17:3)

ZHUKOV, Aleksandr Ivanovich, prof., doktor tekhn. nauk; KARELIN, Yakov Aleksandrovich, prof.; KOLOBANOV, Sergey Konstantinovich, dots., kand. tekhn. nauk; YAKOVLEV, Sergey Vasil'yevich, prof.; LUKINYKH, N.A., kand. tekhn. nauk, retsenzent; MONGAYT, I.L., kand. tekhn. nauk, retsenzent; SHKUNDIN, R.F., inzh., retsenzent; SKVORTSOVA, I.P., red.

[Sewerage] Kanalizatsiia. Izd.3., ispr. i dop. Moskva, Stroiizdat, 1964. 641 p. (MIRA 18:2)

KOLOBANOV, Sergey Konstantinovich; MAZURENKO, Lyubov' Georgiyevna; VORONKOVA, L.V., red.

[Industrializing sanitary engineering operations] Industrializatsiia sanitarno-tekhnicheskikh rabot. Kiev, Budivel'nyk, 1965. 27 p. (MIRA 18:6)

KOLOBANOV, Sergey Konstantinovich; KOLESNIK, L.S., red.

[Design and calculation of biological filters] Proektirovanie i raschet biologicheskikh fil'trov. Kiev, Budivel'nik, 1965. 25 p. (MIRA 18:9)

KOLOBANOV, V. A.

Dissertation defended for the degree of Candidate of Philological Sciences at the Institute of Russian Literature (Pushkin House)

"Social-Literary Activity of Seropian-Vladimirskiy."

Vestnik Akad. Nauk, No. 4, 1963, pp 119-145

L 02991-67 EWT(m)/EWP(t)/ETI IJP(c) MJW/JD/JG

ACC NR: AP6033155 SOURCE CODE: UR/0105/66/000/010/0082/0083 77 B

AUTHOR: Gorina, N. B.; Gruznov, Yu. A.; Kolobanov, M. V.; Matorin, V. I.; Prokoshin, A. F.; Rad'kov, A. I.; Sokolov, V. I.; Tret'yakov, B. N.; Fedotov, L. N.; Khromov, S. M.; Kuleshov, V. F.

ORG: Central Scientific Research Institute of Ferrous Metallurgy im. I. P. Bardin (Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii)

TITLE: The 65BT superconducting alloy 16

SOURCE: Elektrichestvo, no. 10, 1966, 82-83

TOPIC TAGS: superconducting alloy, superconductivity

ABSTRACT: A new, relatively low cost Nb-Ti based alloy, designated 65BT, which meets all the major requirements for superconductors has been developed. Because of its properties it can be used in 1) magnetizing devices, such as superconducting solenoids, for field strengths varying from 20 to 80 koe, and 2) wires 0.1--0.3 mm in diameter and up to 12,000 m long and tapes 5 μ thick. The alloy, which contains 65% niobium, 25% titanium, and several other components, is produced in

Card 1/2 UDC: 537.312.62

KOLOBANOV, E. V.

"Construction and Operating Principles of Fireboxes for Use of Cut Peat." (in Russian) Za Ekonomiiu Topliva, V. 9, Jan 1952, p. 1-3.

Discusses the above and presents data from tests. Includes sketches.

Performance figures are given for the author's furnace, examples of which have been operation satisfactorily under boilers for four years. It has two chambers in series, forming a W. in section. In the first chamber peat particles are met by air blasts and kept rotating clockwise about a horizontal axis, whicl larger pieces burn on a grate at the bottom. In the second chamber the gases from the first are burned and 60% of the ash collects on a grate at the bottom. 10% of the ash stays in the first chamber and 30% is carried away.

KOLOBANOV, E. V.

Fitting the Central Air Heater in Boiler Houses. Leka Promishlenost (Light Industry), #11:38:Nov. 1955

KOLOBANOV, Ye.V.

Installing a central air preheater in the boiler room. Tekst.prom. 15 no.4:47 Ap '55. (MLRA 8:5)
(Steam boilers)

S/128/60/000/012/010/014
A054/A030

AUTHOR: Kolobashkin, B.M.

TITLE: Investigations Relating to Cast and Hammered Heat-Resisting Steels

PERIODICAL: Liteynoye proizvodstvo, 1960, No. 12, pp. 34 - 36

TEXT: The fact that form castings are widely used shows that they have advantages as compared with hammered and stamped products. For instance, structural changes, anisotropy, etc., taking place during the deformation of steel, are not encountered in castings. From the works of N.I. Korneyev and N.G. Skugarev: "Plastic Deformation of High-Alloy Steels" (Ref. 3) and Golikov, I.N.: "Dendrite Segregation in Steel" (Ref. 4) and experience the conclusion may be drawn that the strength properties of cast and hammered steels are the same at room temperature (20°), but at high temperatures cast heat-resistant steels and alloys have certain advantages compared with hammered and stamped steel. In order to verify these suppositions and in view of the importance of increasing the heat-resistance of alloys, tests were carried out under the supervision of S.T. Kishkin, Doctor of Technical Sciences, Professor, with discs (diameter 400 mm, thickness 40 mm) produced partly by centrifugal die-casting and partly by stamping from billets,

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Investigations Relating to Cast and Hammered Heat-Resistant Steels

made of 3Ч481 (EI481) type steel. In the chemical composition and the microstructure there was no considerable difference between the two types of samples. The determination of the mechanical properties of EI481 steel was carried out with a material which had been subjected to the conventional heat treatment (hardening of the hammered steel in water at 1,140°C for 80 min, of the cast steel 1,200°C for 3 h; two-stage aging with heating to 650°C for 16 h and to 775°C for 10 - 16 h). It was found that in the cast samples the direction of cutting had no influence on the mechanical properties, whereas in hammered steel the direction of the fibres was very important. Testing hammered and cast steel (of EI481 steel) on mechanical properties, poured in arc furnaces in two directions showed (Table 1) that the plasticity of hammered steel across the fibre is three times lower than the plasticity along the fibre. When testing the mechanical properties of cast and hammered steels along the fibre during short-term breaking, in the 20 - 700°C temperature range (Fig. 2) it was found that the strength decreased when the temperature was raised to a lesser degree in cast specimens than in hammered samples. Relative elongation decreased in hammered steel with rising temperature, but did not change under similar conditions in cast steel (at 300°C and up this property for both kinds of metals was between

Investigations Relating to Cast and Hammered Heat-Resistant Steels

14 - 18%). Lateral contraction increased at higher temperatures in both kinds of metals, but more intensively in cast metal. The heat-resistance - at 650 and 700°C - was higher for the EI481 type cast steel than for hammered steel of the same brand (Table 2). The temperature influence on the hardness of cast and hammered steel was tested on discs which had been subjected to the above mentioned heat treatment and to aging at 400 - 800°C (aging time for all tests 10 h). When the hardness after aging was measured, it was found that the softening of cast steel started at a temperature 50°C higher than that of hammered steel. When investigating the relationship between the softening of cast and hammered steels and holding time (0 - 150 h at 780 - 800°C, it was found that hammered steel softened more intensively at 800°C and after 70 h holding time its softening was complete. This shows that the softening of cast steel starts at higher temperatures than that of hammered steel, whereas hardly any softening can be observed in cast steel. Moreover, in order to obtain after aging the same degree of hardness for cast and hammered steels of the same type, the aging temperature or the aging time has to be increased for cast steel. This can be explained by the decrease in the velocity of diffusion of cast metal. Both type of samples were also investigated for softening and destruction under the simultaneous influence of

Investigations Relating to Cast and Hammered Heat-Resistant Steels

temperature and load (load 32 kg/mm^2 at 700°C for 0 - 90 h, then short-term rupture at 700°C). When the primary loading time was increased, the actual strength limit of hammered steel decreased steeply, but under the same conditions the strength limit of cast steel first decreased slightly and then rose. After a loading period of 60 - 90 h the actual strength limit of cast steel was 33 - 60% higher than that of hammered steel. The curves S_k of cast and hammered steel interest at a certain point, but then they diverge and show that after a loading time of 60 - 90 h the strength limit of cast steel is higher than that of hammered steel. The curves plotted for relative contraction and relative elongation, which intersect at a holding time range of 10 - 15 h, under primary loading are remarkably analogous. After loading for 60 - 90 h, the absolute values of relative contraction and relative elongation are twice, sometimes three times greater than those for hammered steel. There are 6 figures, 2 tables and 4 Soviet references.

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S/128/62/000/002/002/007
A004/A127

AUTHORS: Tuchkevich, N.M.; Kolobashkin, B.M.

TITLE: Producing castings from scab-sensitive alloys by the vacuum method and with gas shielding

PERIODICAL: Liteynoye proizvodstvo, no. 2, 1962, 12 - 14

TEXT: Although scab formation is practically absent in the centrifugal casting of heat-resistant alloys containing Cr, Al, Ti, etc., a great number of publications on vacuum casting and gas-shielded casting reveal that also in centrifugal casting a certain protection of the metal from oxidation is rather useful. The authors report on investigations carried out by V.N. Bukhteyev, Ye.G. Moskaleva, Ye.P. Prozorova and V.A. Zhabina to establish the effect of gas-shielded centrifugal casting to protect the metal from oxidation on the properties of scab-sensitive alloys. The centrifugal casting machine with vacuum chamber has been designed under the supervision of the authors and B.F. Milyayev, while it was built under the direction of V.L. Khersonskiy. A detailed description of the machine design and the specimen tests is given. Cast annular specimens were cut into templets and subjected to tests showing their physical-mechanical pro-

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...reduction in ...figures and 12 refer-

Producing castings from scab-sensitive ....

S/128/62/000/002/002/007
A004/A127

ences: 8 Soviet-bloc and 4 non-Soviet-bloc. The three references to English-language publications read as follows: Czorniak, E.S., "Precision Metal Molding", v.15, no. 10, 1957; "Metal Industry", v. 92, no. 4, 1958; "Metal Progress", v. 73, no. 5, 1958.

Card 3/3

L 45453-65 EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b)/EWA(c) MJW/JD/GS
ACCESSION NR: AT5011344 UR/0000/65/000/000/0092/0098

27
B+1

AUTHOR: Kolobashkin, B. M.; [illegible]ashko, N. P.; Sorokina, K. P.

TITLE: Phase analysis of EI481 steel in the cast and deformed state

SOURCE: Fazovyy sostav, struktura i svoystva legirovannykh staley i splavov (Composition, structure, and properties of alloy steels and alloys). Moscow, Mashinostroyeniye, 1965, 92-98

TOPIC TAGS: steel phase composition, cast steel, deformed steel, strain hardening, steel heat treatment, carbide distribution, steel mechanical property

ABSTRACT: Steel EI481, having the composition 0.38% C, 8.90% Mn, 0.72% Si, 14% Cr, 7.7% Ni, 1.26% V, 0.32% Nb, and 1.20% Mo, was subjected to phase analysis. The phase composition was determined after quenching from 1150 and 1200C in the cast state and only from 1150C in the deformed state, and aging. The carbides were isolated electrolytically. Chemical and x-ray structural analyses were carried out on the anodic deposits obtained. The primary carbides $Me_{23}C_6$ and VC dissolve almost completely in the course of homogenization at 1150C, while in the cast steel the solution of these carbides takes place only as a result of double homogenization at 1200C. The decrease in the plasticity and impact strength

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L 45453-65
ACCESSION NR: AT5011344

of cast steel E1481 as compared to deformed steel after quenching from 1150C and double aging is due to the presence of primary carbides and the inhomogeneous dendritic structure of the solid solution. The greater stress-rupture strength of cast steel at 650-700C is apparently due to the inhomogeneity of the solid solution and to the greater quantity of $Me_{23}C_6$ carbides precipitating during aging as compared to the deformed steel. After a second homogenization of this steel at 1200C followed by quenching, the process of double aging has approximately the same kinetics and proceeds with the formation of VC and $Me_{23}C_6$ as in the deformed steel after quenching from 1150C. Orig. art has: 3 tables and 1 figure.

ASSOCIATION: none

SUBMITTED: 17Dec64 ENCL: 00 SUB CODE: MM, SS

NO REF SOV: 005 OTHER: 000

Card 2/2

L 36940-66 EWT(m)/EWP(w)/T/EWP(t)/ETI/EWP(k) IJP(c) JD/HW/WB

ACC NR: AP6019713 SOURCE CODE: UR/0128/66/000/006/0003/0005

AUTHOR: Korolev, V. M. (Candidate of technical sciences); Kolobashkin, B. M. (Candidate of technical sciences); Zhmurina, Yu. A. (Engineer); Maslov, A. D. (Engineer); Malinina, A. D. (Technician); Kuyanova, M. M. (Technician)

ORG: none

TITLE: High-strength stainless steel VNL-1

SOURCE: Liteynoye proizvodstvo, no. 6, 1966, 3-5

TOPIC TAGS: stainless steel, high strength steel, austenitic martensite steel, precipitation hardenable steel/ VNL-1 stainless steel

ABSTRACT: A new austenitic-martensitic cast stainless steel designated VNL-1 has been developed. The steel contains 0.08% max C, 0.9% max Mn, 0.75% max Si, 14.07—14.60% Cr, 6.45—7.50% Ni, 0.68—0.83% Mo, 0.016—0.018% S, and 0.028—0.30% P. At room temperature the steel has a tensile strength of 111—123 kg/mm^2, a yield strength of 84—93 kg/mm^2, an elongation of 11.8—19.0%, a reduction of area of 37—45%, and a notch toughness of 5—8 mkg/cm^2. The corresponding figures for -196C are 161—180 kg/mm^2, 107—147 kg/mm^2, 9—16%, 14—21%, and 4—7%. At 500C the steel has a tensile strength of 65—80 kg/mm^2, an elongation of 8—10%, and a reduction of area of 20—40%. In cyclic tests under a stress of 77.5—88 kg/mm^2, the steel withstood

 UDC: 621.74:669.15-194.55

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6000—14000 cycles at a frequency of 8 cycles/min. Under axial stresses, the steel has a fairly low notch sensitivity. The steel can be successfully welded with argon-shielded arc in either the as-cast or heat-treated conditions. Fully heat-treated welds have a strength of over 90 kg/mm^2 and a satisfactory notch toughness in the range -196C to 20C. The corrosion resistance in SO_2 and in sea water of VNL-1 is equivalent to that of EI696 and 268L steels. The steel is used for investment castings into ceramic molds. Orig. art. has: 7 figures and 4 tables. [FM]

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 002/ ATD PRESS: 5039

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KOLOBASHKIN, V.M.

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Moscow. Inzhenerno-fizicheskiy institut.

Pribory i metody analiza izlucheniy; sbornik nauchnykh rabot, vyp. 2. (Apparatus and Methods for the Analysis of Radiation; Collection of Scientific Papers, no. 2) Moscow, Atomizdat, 1960. 166 p. 4000 copies printed.

Sponsoring Agency: Ministerstvo vysshego i srednego spetsial'nogo obrazovaniya RSFSR. Moskovskiy inzhenerno-fizicheskiy institut.

Ed. (Title page): Ye. L. Stolyarova, Candidate of Physics and Mathematics; Tech. Ed.: S. M. Popova.

PURPOSE: This collection of articles is intended for specialists in nuclear physics, dosimetry of nuclear radiations, and shielding.

COVERAGE: The articles were prepared by scientists of MIFI (Moscow Physics and Engineering Institute) and presented at the 1957 conference of the Institute. Brief annotations to the articles have been included in the Table of Contents. No personalities are mentioned. References follow each article.

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BARANOV, V.F.; KOLOBASHKIN, V.M.; KRAMER-AGEYEV, Ye.A.

Energy calculation of a beta spectrometer containing no iron and a transverse magnetic field. Sbor. nauch. rab. MIFI no.2:121-125 '60. (MIRA 14:3)

(Beta-ray spectrometer)

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S/092/62/000/001/016/022
B102/B186

AUTHORS: Baranov, V. F., Kolobashkin, V. M., Dmitriyevskiy, I. M.

TITLE: An iron-free beta-spectrometer with r_o=200 mm

SOURCE: Moscow. Inzhenerno-fizicheskiy institut. Voprosy dozimetrii i zashchity ot izlucheniy, no. 1, 1962, 108-112

TEXT: The iron-free magnetic beta-spectrometer with double electron focusing ($\pi\sqrt{2}$), designed, constructed and tested by Baranov, was analyzed, and on the basis of the data obtained an enlarged instrument of the same type was built. Its stable-orbit radius of 200 mm is twice that of the first model; the other parameters are the same. It is designed for electrons of E < 3 Mev. The maximum angular divergence of the beam is $\pm 11.4^{\circ}$ (axial) and $^{+11.4^{\circ}}_{-16.2^{\circ}}$ (radial) if the solid angle is 1.5% of 4π. The water-cooled magnet coils have a total resistance of 12.5ohms. On application, the instrument shows a relative half-width of the Cs^{137} K-conversion line of 1% in the case of a β-3/8 field, 2 mm source diameter, and a 2 mm input slit. There are 3 figures.

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IVANOV, V.I.; KOLOBASHKIN, V.M.; ZHARKOV, V.P.

Allowing for self-absorption and self-scattering of β-radiation in a gas. Vop. dos. i zashch. ot izluch. no.2:133-136 '63.
(MIRA 17:3)

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ACCESSION NR: AT5003274 S/2892/64/000/003/0005/0009

AUTHOR: Volobashkin, V. M.; Shulenko, M. V.; Zharkov, V. P.

TITLE: Gas radiometry using cylindrical counters within fixed volumes

SOURCE: Moscow, Inzhenerno-fizicheskiy institut. Voprosy dozimetrii i zashchity ot izlucheniy, no. 3, 1964, 5-9

TOPIC TAGS: gas radiometry, counter volume, beta radiation, radiation dosimetry, counter sensitivity

ABSTRACT: The theory underlying the determination of the concentration of β-radioactive gases using cylindrical counters within a fixed gas-filled volume (see, e.g. H. Gebauer, Kerntechnik, 3, 3, 130, 1961) shows that there is an optimum counter radius resulting in an optimum counter sensitivity. However, in most practical cases, this optimum cannot be achieved due to the finite radii of available counters. To circumvent this difficulty, the authors propose that the optimum counter volume be covered by a symmetrically distributed battery of 7 counters as shown in Fig. 1 of the Enclosure. They derive the pertinent theoretical equations which, among other things, permit the relative change in counting rate when going over

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from a single counter to the combination of seven to be estimated within ± 10%. Tests showed that the background of seven AS-1 counters in coincidence was extremely constant and equal to 26.3 ± 0.2 c/min., while each of the separate counters registered a background of 17-24 c/min. Orig. art. has: 7 formulas and 2 figures.

ASSOCIATION: None

SUBMITTED: 00 ENCL: 01 SUB CODE: NP

NO REF SOV: 004 OTHER: 001

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